DOCUMENT RESUME

ED 396 877 RC 020 605

TITLE New Generation System. "An Interstate Information Network Serving America's Children."
INSTITUTION Texas A and I Univ., Kingsville.
PUB DATE Mar 96
NOTE 6p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Records; Access to Information; *Computer Networks; Consortia; Cost Effectiveness; *Databases; Elementary Secondary Education; *Information Networks; Information Services; Internet; *Migrant Education; Transfer Students; Users (Information)
IDENTIFIERS *New Generation System

ABSTRACT

The New Generation System (NGS) is a computer network developed to transfer academic records of migrant students. NGS was developed as a result of the phasing out of the Migrant Student Record Transfer System. NGS is backed by a 29-state consortium that uses the Internet to transfer records because of its speed, availability, and cost-effectiveness. The system includes a computer interface that is "user friendly"; speed enhancement features making it possible to obtain student records from another state within minutes; security features including password authentication and systems that prevent data from being compromised while in transit; and continuous efforts at maintaining data integrity. In addition, NGS is capable of generating over two dozen reports that can be sent immediately to the user. A module to be implemented in the future will allow NGS users to design their own reports tailored to their data needs. NGS is cost-effective in that full funding is provided through a state membership fee. The only cost incurred by the school district is connection to the Internet. NGS is the first of the migrant data systems to pioneer the development of an Inter-System Communication package that allows NGS and the California migrant database to communicate. This allows users of NGS to access California migrant records as if they were a part of NGS. It is hoped that all state systems will adopt this package and give users access to records of migrant students nationwide. The future of NGS includes multimedia features in which users will be able to see a photo of the student, hear the student read, and view scanned papers of the students' work. Includes information for connecting to NGS. (LP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

New Generation System

" An Interstate Information Network Serving America's Children"

New Generation System Office - Campus Box 152, Texas A&M University - Kingsville, TX 78363 - (800) 687-0108

ED 396 877

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Tadeo Reyna

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

RC 020605

Distributed at Migrant National Conference
March 14-17, 1996 South Padre Island, Texas

BEST COPY AVAILABLE

New Generation System

"An Interstate Information Network Serving America's Children"

New Generation System Office - Campus Box 152, Texas A&M University - Kingsville, TX 78363 - (800) 687-0108

What is the New Generation System?

The *New Generation System* is the answer to the growing needs of the Migrant Education community. With the phasing out of MSRTS, the states that it once served were left with the commission to create a new system to replace it. The *New Generation System (NGS)* is the result of that commission. It is a very effective and powerful way to transfer the records of migrant students to other schools. *NGS* is backed by a 29 state consortium. Funding has originated from these states in the form of an RFP. Under the supervsion of the consortium, *NGS* is under constant development by a team at Texas A&M University, Kingsville. Development began in late June of 1995. Progress has been made rapidly to bring the system online.

The *New Generation System* uses the internet as the medium for transferring records due to its speed, availability, and cost-effectiveness. *NGS* also supports both Macintosh and PC (IBM Compatible) computer systems to accomodate the preferences of the user.

System Features

Ease of Use

The *New Generation System* was designed from the ground up with the user in mind. Great pains have been taken to ensure that the interface is as "user-friendly" as possible. The screens presented to the user are in plain english to make their purpose clear. Any data elements that are to be entered into the system are pre-set with defaults where possible to ease the entry process. Student data need only be entered once, because the system fills in the blanks if the student is found to already exist in the database. Student identification is simplified through the use of photographs that are viewable online. This eliminates the possiblity of confusing students with similar records. In an ongoing effort to maintain an easy to use system, the *NGS* staff constantly takes suggestions from users on how to simplify the use of the system via the Questions and Comments screen. Users may enter a suggestion at this screen, and it will be recieved instantly.

Speed

The *New Generation System* is also desinged with speed in mind. All actions performed in the database are updated "real-time." Which means that all changes made to the database are reflected the moment the change is made. There is no need to wait for the system to post the data overnight. Also, when a student record is requested, it is displayed at that time. This also holds true for records of other states. This means that *other* states' records are available at the user's fingertips, and when a record is changed, all states see the modification instantly.

Due to the speed enhancements incorporated into *NGS*, it is possible to obtain a migrant student record from another state within 1 minute of the time the user sits down at the computer.

Security

Security is of foremost importance when dealing with confidential student records. The *NGS* development team has taken this into serious consideration, implementing full preventative and reconsructive measures. All *NGS* users must first complete password authentication to gain access. During the session, all transmitted material is encrypted using the new Secure Sockets Layer (SSL) devloped by Netscape Corporation. This ensures that data security is not compromised while in transit. In the event that a security breach is found, the extensive logging capabilities of the system allow *NGS* staff to pinpoint who's login has been used, and with the click of a button, the offending user's actions can be "undone." This ensures that data will remain intact, even after intentional sabotage. As an extra precaution, the database server resides behind a firewall (user barrier), guaranteeing that no unauthorized database modifications are made. Furthermore, as new security enhancements are developed, they will be implemented into the system.

Data Integrity

Another key issue in the development of the *New Generation System* is data integrity. That is to say, all records must contain true and valid information.

Distributed at Migrant National Conference
March 14-17, 1996 South Padre Island, Texas

RC 020605

This also references the need to maintain a non-duplicated set of student data. *NGS* will assign new students a Unique Student ID (USID). If the student already has an MSRTS number, then that number is used as the USID. If not, a check is made to ensure that the student is not a duplicate. Any possible duplicate students are displayed for the user to double check. This ensures 1.) That the each student will have a unique identification number, and 2.) That the student will only reside in the database once. *NGS* also keeps track of Social Security Numbers for state use.

Another way *NGS* ensures data integrity is the implementation of drop-down menus rather than cumbersome data codes. Instead of entering a number to denote a student's race, it is selected from a list. This increases the "usability" of the system. For users who prefer the use of codes, they are also presented in the list. Another feature is the implementation of initialized data fields. The system will know by the User ID of the user, what state, district and campus he/she is representing. Rather than entering this information, the system auto-matically defaults these fields to the user's information. The system also defaults other miscellaneous fields as it sees fit. (Of course the values in these fields may be altered if the default value is not the desired value.)

Reporting Features

One of the more important features of *NGS* is the reporting module. *NGS* is capable of generating a wide arrangement of reports, from the campus, district, and state level. The report module is equipped with over two dozen standard reports. These reports are generated "real-time," and are sent straight back to the user in a choice of three formats: a.) Write (the stock Windows application) b.) Microsoft Word or c.) Plain text file. They may then be printed or viewed at the user's leisure. However, *NGS* will launch the chosen word processor when you receive the report so the report may be printed or viewed immediately.

It is duely noted that even two dozen reports may not satisfy the needs of every district, and the *NGS* staff has taken this into consideration. A module, to be implemented soon, will allow *NGS* users to design their own reports tailored to their needs. The option to download a data file containing district data is also currently under development. This will allow a district complete control over its set of data, and allows them the ability to add data elements and manipulate that data. An innumerable number of reports may be generated from this data. The file may be downloaded in Microsoft Access, Foxpro, Dbase, or ASCII format. If other database formats needed, they can be added at a later date.

COE Entry

Not all COE's are the same, and the *NGS* staff has recognized this need. Under current development is a feature that will allow each state to use a COE entry screen that matches their state's COE format. Since the system knows the state of each user, they are presented with the COE format that pertains to their state.

Also, for recruiters, a laptop version of *NGS* is available for offline data entry. The data can be entered on-site and be uploaded to the system at a later date. This feature has been developed by a team of programmers at Western Michigan University.

Cost-Effectiveness

The *New Generation System* is very cost-effective due to the fact that it was not developed by a company, but rather, an educational institution backed by a consortium of states. These states have bought into *NGS* and provide full funding through a membership fee. There are no site-licences or other charges. The only cost incurred by the campuses lie in their connection to the internet. The cost of connection is the only cost for usage. (Note that this cost does not go to *NGS*, but to an internet provider of the user's choice.)

The software *NGS* uses to communicate with the server is also very cost-effective. *Netscape Navigator* is the designated internet navigation package. This shareware package is provided free of charge to educational institutions. This software is also distributed by the *NGS* office upon issue of a UserID and Password. This package also allows for real-time updating of the *NGS* program. There is no longer the need to obtain copies of updated software. The second the software is updated on the server, it is automatically recognized by *Netscape Navigator*.

Distributed at Migrant National Conference
March 14-17, 1996 South Padre Island, Texas

BEST COPY AVAILABLE

Inter-System Communication

NGS is the first of the Migrant Data Systems to pioneer the development of an Inter-System Communication package. The *New Generation System*, in a joint action with the State of California is developing a package to allow *NGS* and the California migrant database to communicate. This will allow the users of *NGS* to access California migrant records as if they were a part of *NGS*. The system will use the SPEEDE/ExPRESS format to transfer data between systems; however, *NGS* users need not puchase an expensive SPEEDE/ExPRESS translator, all translations will be handled by the *NGS* server.

Once this package is complete, it will be made available for other systems to use. It is hoped that all the systems will adopt this package, and in effect, connect ALL the states' migrant data systems to *NGS* and to each other. This will give all migrant system users access to records of migrant students anywhere in the United States.

Multimedia Capabilities

The future of *NGS* includes the incorporation of multimedia. Users will not only be able to see a photo of the student, but actually hear the student read. It will also be possible to view scanned papers of the students' work. The teacher will actually be able to see the student's handwriting and past work to get a feel for the need of the student. Video will also be supported to allow users to view a video of the student reading or presenting in front of a class or teacher. These capabilities distinguish *NGS* in a class all its own. Not only does the system transfer records, but also aides in the education of the student (which is the driving force behind any educational project). Of course, as technology increases, new features will be added to *NGS*. Possible future enhancements include the use of the new JAVA programming language to ease the development of user-oriented features, real-audio implementation for the use of audio instructions for users, etc. The scalability of *NGS* is limitless.

What Do I Need to Get Connected?

The *New Generation System* supports both Macintosh, and PC (IBM Compatible) computer systems. The requirements for both platforms are listed below:

Macintosh:

Power PC 8100 80MHz or greater
16 Megs of RAM
14.4 kbps or 28.8 kbps Modem
(Preferably 28.8)
Laser Printer

PC

486 DX2 66 MHz or greater
8 Megs of RAM
Super VGA Monitor
14.4 kbps or 28.8 kbps Modem
(Preferably 28.8)
Sound Blaster or compatible sound card
Laser Printer
Either Windows 3.11 or Windows 95
(Must have 800x600 video driver)

Be aware that these are the *recommended* minimum system requirements. Systems that do not meet the above criteria may work on the *NGS*, but to fully reap the potential of the *New Generation System*, the above recommendations are set forth.

An internet service provider is another necessity. Note that some districts are already connected to the internet. If this is the case, there is no need to get connected again, the current connection can be extended for use with *NGS*. In searching for an internet service provider, it is important to make sure that the provider's services support the use of Netscape Navigator.

What About Existing Databases?

NGS has already parsed the existing data of other participating states into the database. Upon joining *NGS*, the state's most recent data will be converted into the *NGS* format and merged with the master database, free of charge.

In Closing...

Distributed at Migrant National Conference
March 14-17, 1996 South Padre Island, Texas

New Generation System

" An Interstate Information Network Serving America's Children"

New Generation System Office - Campus Box 152, Texas A&M University - Kingsville, TX 78363 - (800) 687-0108

The *New Generation System* is a scalable, cutting edge system serving the needs of America's migrant community. With the support of 29 states, *NGS* is the most widely supported system. For more information about joining *NGS*, or for a free demonstration, please feel free to give us a call at: 1-(800) 687-0108.

Distributed at Migrant National Conference
March 14-17, 1996 South Padre Island, Texas